

Amendments to the Claims:

Please amend claims 28-32 and add new claims 38-81, as follows. This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1.-11. (Cancelled)

12. (Previously Presented) A contraceptive or sterilization device for occluding a reproductive body lumen to prevent the passage of reproductive cells therethrough, comprising:

a) a tubular member having a first end, a second end, and a lumen extending therein, which is at least in part expandable within the reproductive body lumen from a first configuration to a second larger configuration; and

b) a mesh member connected to the tubular member, which is permeable to allow for tissue ingrowth to thereby occlude the reproductive body lumen.

13. (Previously Presented) A contraceptive device installed within a lumen of the patient's reproductive system, comprising

a) a tubular member having a first end, a second end, and a lumen extending therein, and having at least a portion thereof which is secured to a body wall portion defining at least in part the lumen of the patient's reproductive system; and

b) an occluding member connected to the tubular member comprising an epithelialized mesh which occludes the lumen of the patient's reproductive system sufficiently to prevent the passage of reproductive cells therethrough.

14. (Previously Presented) A contraceptive system, comprising

a) a catheter having a proximal end, a distal end, and a lumen extending at least in part therein; and

b) a contraceptive device releasably connected to the catheter, having a tubular member having a first end, a second end, and a lumen extending therein, which is at least in part expandable within the reproductive body lumen from a first configuration to a second larger configuration, and having a mesh member connected to the tubular member, which is permeable to allow for tissue ingrowth to thereby occlude the reproductive body lumen.

15. (Previously Presented) A method of contraception comprising the steps of:

- a) inserting within a desired body lumen a contraceptive device comprising a tubular member and a mesh member connected thereto;
- b) expanding the tubular member within the body lumen;
- c) securing the expanded tubular member to a wall portion defining at least in part the body lumen; and
- d) epithelializing the mesh member to occlude the body lumen.

16. (Previously Presented) The method of claim 15 wherein the step of expanding the tubular member comprises the step of releasing a radially compressive force on the tubular member.

17. (Previously Presented) The method of claim 16 wherein the contraceptive device is disposed within a lumen of a delivery catheter, and the step of releasing the radially compressive force comprises longitudinally displacing the tubular member out a distal end of the delivery catheter.

18. (Previously Presented) The method of claim 15 wherein the expanded tubular member is disposed within the body lumen for sufficient time for it to be epithelialized within the body lumen and thereby secured to the wall portion.

19. (Previously Presented) A contraceptive or sterilization device for occluding a fallopian tube to inhibit conception, comprising:

a) a tubular structure having a first end, a second end, and a lumen extending therein, the tubular structure expandable within the fallopian tube from a first configuration to a second larger configuration; and

b) a tissue ingrowth element connected to the tubular structure, the tissue ingrowth element inciting tissue ingrowth to thereby occlude the fallopian tube.

20. (Previously Presented) A contraceptive device installed within a patient's fallopian tube, comprising:

a) a tubular structure having a first end, a second end, and a lumen extending therein, and having at least a portion thereof which is secured to a tubal wall portion of the patient's fallopian tube; and

b) a tissue ingrowth element connected to the tubular structure comprising a material with tissue ingrowth therein which occludes the patient's fallopian tube sufficiently to disrupt conception.

21. (Previously Presented) A contraceptive system, comprising:

a) a catheter having a proximal end, a distal end, and a lumen extending therein;
and

b) a contraceptive device releasably connected to the catheter, having a tubular structure having a first end, a second end, and a lumen extending therein, which is expandable within the reproductive body lumen from a first configuration to a second larger configuration, and having a tissue ingrowth element connected to the tubular structure, which is porous to allows for tissue ingrowth to thereby occlude the reproductive body lumen.

22. (Previously Presented) A contraceptive device, comprising:

a) a tubular body which is expandable from a first tubular configuration to a second larger tubular configuration having an expanded portion with an inner diameter within the tubular body which is larger than an inner diameter within the tubular body in the first configuration, the second configuration facilitating securing at least a portion of the tubular body to a wall portion defining at least in part a lumen of a patient's reproductive system, the tubular

body having an open framework facilitating the ingrowth of tissue cells thereby securing the expanded portion of the tubular body to the wall portion of the reproductive system lumen, and

b) a member within the tubular body which is configured to support tissue growth.

23. (Previously Presented) The contraceptive device of claim 22, wherein the member within the tubular body provokes an inflammatory response.

24. (Previously Presented) A contraceptive device, comprising

a) a tubular body which is expandable from a first tubular configuration to a second larger tubular configuration to facilitate securing at least a portion of the tubular body to a wall portion defining at least in part a lumen of a patient's reproductive system and which has an open framework facilitating the ingrowth of tissue cells;

b) a member within the expandable tubular body which is configured to support tissue growth.

25. (Previously Presented) A contraceptive device, comprising

a) a tubular body which is expandable from a first tubular configuration to a second larger tubular configuration to facilitate securing at least a portion of the tubular body to a wall portion defining at least in part a lumen of a patient's reproductive system, the tubular body comprising a helical coil and allowing the ingrowth of tissue;

b) a material disposed at least in part within the expandable tubular body so as to incite tissue in-growth.

26. (Previously Presented) A contraceptive device, comprising a tubular body which has a longitudinal axis, which is at least in part radially expandable about the longitudinal axis within a lumen of a patient's reproductive system from a first tubular configuration to a second tubular configuration having larger transverse dimensions than the first tubular configuration, which has an open structure in the expanded configuration for ingrowth of tissue cells for securing the expanded portion of the tubular body to a wall portion of the patient's

reproductive system lumen, and which has a member within the tubular body which is configured for tissue growth.

27. (Previously Presented) A contraceptive device, comprising:

- a) a tubular body which has a longitudinal axis, which is at least in part radially expandable about the longitudinal axis within a lumen of a patient's reproductive system from a first tubular configuration to a second tubular configuration having larger transverse dimensions than the first tubular configuration to facilitate securing a least a portion of the tubular body to a wall portion defining at least in part a lumen of a patient's reproductive system and which has an open structure in the expanded configuration for ingrowth of tissue cells; and
- b) a member within the expandable tubular body which is configured for tissue growth.

28. (Currently Amended) The contraceptive device of claim 26 wherein ~~26 wherein~~ the tubular member comprises a tube having a pattern of slots to allow the tubular member to be expanded to the open structure.

29. (Currently Amended) The contraceptive device of claim 26 wherein ~~26 wherein~~ the tubular member is formed of a helical wire configured to allow the tubular member to be expanded to the open structure.

30. (Currently Amended) The contraceptive device of claim 26 wherein ~~26 wherein~~ the tubular member comprises braided filaments configured to allow the tubular member to be expanded to the open structure.

31. (Currently Amended) The contraceptive device of claim 27 wherein ~~27 wherein~~ the tubular member comprises a tube having a pattern of slots to allow the tubular member to be expanded to the open structure.

32. (Currently Amended) The contraceptive device of claim 27 wherein ~~27 wherein~~ the tubular member is formed of a helical wire configured to allow the tubular member to be expanded to the open structure.

33. (Previously Presented) The contraceptive device of claim 27 wherein the tubular member comprises braided filaments configured to allow the tubular member to be expanded to the open structure.

34. (Previously Presented) A contraceptive device for deployment in a female patient's fallopian tube, comprising:

a) A tubular body which has a longitudinal axis, which at least in part is radially expandable about the longitudinal axis within the patient's fallopian tube from a first tubular configuration to a second tubular configuration having larger transverse dimensions than the first tubular configuration to facilitate securing at least a portion of the expanded tubular body to a wall portion defining at least in part a lumen of the female patient's fallopian tube and which has an open structure in the expanded configuration facilitating ingrowth of tissue cells; and

b) a member within the radially expandable tubular body which is configured for tissue growth.

35. (Previously Presented) A sterilization device occluding a reproductive body lumen to prevent the passage of reproductive cells therethrough, comprising:

a) a tubular member having a first end, a second end, and a lumen extending therein, the tubular member at least in part expandable within the reproductive body lumen from a first configuration to a second larger configuration; and

b) a mesh member connected to the tubular member, the mesh member permeable and receiving tissue ingrowth therein so as to occlude the reproductive body lumen.

36. (Previously Presented) A contraceptive device installed within a lumen of the patient's reproductive system, comprising

a) a tubular member having a first end, a second end, and a lumen extending therein, and having at least a portion thereof which is secured to a body wall portion defining at least in part the lumen of the patient's reproductive system; and

b) an occluding member connected to the tubular member comprising a mesh receiving tissue ingrowth therein, the ingrown mesh occluding the lumen of the patient's reproductive system sufficiently to prevent the passage of reproductive cells therethrough.

37. (Previously Presented) A contraceptive or sterilization device for occluding a fallopian tube to inhibit conception, the fallopian tube capable of producing ingrowth tissues, the device comprising:

a) a tubular structure having a first end, a second end, and a lumen extending therein, the tubular structure expandable within the fallopian tube from a first configuration to a second larger configuration; and

b) a tissue ingrowth element connected to the tubular structure, the tissue ingrowth element receiving tissue ingrowth to thereby occlude the fallopian tube.

38. (New) A contraceptive device, comprising a tubular body which has a longitudinal axis, which is at least in part configured to be radially expanded about the longitudinal axis within a lumen of a patient's reproductive system from a first tubular configuration to a second retained tubular configuration having larger transverse dimensions than the first tubular configuration, which has an open structure in the retained expanded configuration for ingrowth of tissue cells for securing the expanded portion of the tubular body to a wall portion of the patient's reproductive system lumen, and which has a member at least partially within the tubular body which is configured for tissue growth.

39. (New) The contraceptive device of claim 38 wherein the member at least partially within the tubular body promotes tissue growth including an inflammatory response.

40. (New) A contraceptive device, comprising

a) a tubular body which has a longitudinal axis, which is at least in part configured to be radially expanded about the longitudinal axis within a lumen of a patient's reproductive system from a first tubular configuration to a second retained tubular configuration having larger transverse dimensions than the first tubular configuration to facilitate securing a least a portion of the tubular body to a wall portion defining at least in part a lumen of a patient's reproductive system and which has an open structure in the retained expanded configuration facilitating the ingrowth of tissue cells; and

b) a member at least partially within the expandable tubular body which is configured for tissue growth.

41. (New) The contraceptive device of claim 38 wherein the tubular member comprises a tube having a pattern of slots.

42. (New) The contraceptive device of claim 38 wherein the tubular member is formed of a helical wire.

43. (New) The contraceptive device of claim 38 wherein the tubular member comprises braided filaments.

44. (New) The contraceptive device of claim 40 wherein the tubular member comprises a tube having a pattern of slots.

45. (New) The contraceptive device of claim 40 wherein the tubular member is formed of a helical wire.

46. (New) The contraceptive device of claim 40 wherein the tubular member comprises braided filaments.

47. (New) A contraceptive device for deployment in a female patient's fallopian tube, comprising:

a) A tubular body which has a longitudinal axis, which at least in part is configured to be radially expanded about the longitudinal axis within the patient's fallopian tube

from a first tubular configuration to a retained second tubular configuration having larger transverse dimensions than the first tubular configuration to facilitate securing a least a portion of the expanded tubular body to a wall portion defining at least in part a lumen of the female patient's fallopian tube and which has an open structure in the retained expanded configuration facilitating ingrowth of tissue cells; and

b) a member at least in part within the tubular body which is configured for tissue growth.

48. (New) The contraceptive device of claim 38 wherein the tubular body is configured at least in part to retain substantially the second tubular configuration for sufficient time for tissue growth to epithelialize at least an expanded portion of the tubular body.

49. (New) The contraceptive device of claim 40 wherein the tubular body is configured to retain substantially the second tubular configuration at least in part for sufficient time for tissue growth to epithelialize at least an expanded portion of the tubular body.

50. (New) The contraceptive device of claim 38 wherein at least part of the tubular body is configured to have outer transverse dimensions in the expanded second configuration which substantially conform to inner transverse dimensions of the patient's reproductive lumen at an expansion site in the reproductive lumen.

51. (New) The contraceptive device of claim 40 wherein at least part of the tubular body is configured to have outer transverse dimensions in the expanded second configuration which substantially conform to inner transverse dimensions of the patient's reproductive lumen at an expansion site in the reproductive lumen.

52. (New) The contraceptive device of claim 47 wherein the tubular body is configured at least in part to retain substantially the second tubular configuration for sufficient time for tissue growth to epithelialize at least an expanded portion of the tubular body.

53. (New) The contraceptive device of claim 47 wherein the tubular body is configured to substantially conform to the inner transverse dimensions of the patient's fallopian tube in the second tubular configuration and to at least in part to retain substantially the second tubular configuration for sufficient time for tissue growth to epithelialize at least an expanded portion of the tubular body.

54. (New) A method of human contraception comprising

- a) providing a contraceptive device comprising a tubular body and a member which is configured for tissue growth which is disposed at least partially within the tubular body;
- b) inserting within a lumen of a patient's reproductive system at least a portion of the contraceptive device including at least part of the tubular body and at least part of the tissue growth member; and
- c) within a region of the patient's reproductive lumen, radially expanding at least a tubular portion of the tubular body about a longitudinal axis from a first configuration to a second configuration having outer transverse dimensions which are larger than outer transverse dimensions in the first configuration and which substantially conform to the inner transverse dimensions of the patient's reproductive lumen in the region where the tubular portion is expanded.

55. (New) The method of claim 54 wherein occlusion of the reproductive lumen is facilitated by tissue growth promoted by the tissue growth member.

56. (New) The method of claim 54 wherein the tissue growth member includes an inflammatory response.

57. (New) The method of claim 54 wherein contraception is aided by a contraceptive agent associated with the device.

58. (New) The method of claim 54 wherein the tubular portion is expanded at least partially by self-expanding.

59. (New) The method of claim 54 wherein the step of inserting at least a portion of the contraceptive device within the patient's reproductive lumen further comprises using a catheter to introduce at least the portion of the contraceptive device into the reproductive lumen.

60. (New) The method of claim 54 wherein the expanded tubular portion is retained substantially in the second configuration within the patient's reproductive lumen.

61. (New) The method of claim 54 wherein at least part of the expanded tubular portion of the tubular body is secured by tissue ingrowth to a wall of the patient's reproductive lumen.

62. (New) The method of claim 54 wherein tissue growth epithelializes the expanded tubular portion of the tubular body and at least a portion of the tissue growth member within the patient's reproductive lumen.

63. (New) The method of claim 54 wherein the contraceptive device is secured to a portion of a wall forming the patient's reproductive lumen.

64. (New) The method of claim 62 wherein the contraceptive device is secured to a portion of a wall forming the patient's reproductive lumen by epithelializing the expanded tubular portion of the tubular body within the reproductive lumen.

65. (New) The method of claim 54 wherein the radial expansion of the tubular portion of the tubular member to the second larger configuration secures at least the expanded tubular portion of the tubular body at an expansion site within the patient's reproductive lumen.

66. (New) A human contraceptive device comprising
a) a tubular body which has a longitudinal axis, which has at least a tubular portion that is configured to be radially expanded within a lumen of a patient's reproductive system about the longitudinal axis from a first tubular configuration to a second tubular

configuration having outer transverse dimensions which are larger than outer transverse dimensions in the first configuration and which substantially conform to inner transverse dimensions of the patients reproductive lumen at an expansion site therein; and

b) a member which is configured for tissue growth and which is disposed at least partially within the tubular body.

67. (New) The contraceptive device of claim 66 wherein the tubular portion is configured to have an open structure in the second tubular configuration.

68. (New) The contraceptive device of claim 67 wherein the tubular portion is configured to be retained in the expanded configuration.

69. (New) The contraceptive device of claim 66 wherein the tubular portion is configured to have an open structure in the expanded second configuration.

70. (New) The contraceptive device of claim 67 wherein the tubular body is selected from the group consisting of a tube having a pattern of slots, a helical wire, and braided filaments.

71. (New) The contraceptive device of claim 66 wherein the tubular body is configured to promote tissue growth including an inflammatory response.

72. (New) The contraceptive device of claim 66 including a deliverable contraceptive agent.

73. (New) The contraceptive device of claim 66 wherein the tissue growth member is configured to support tissue growth that contributes to occlusion of the reproductive lumen.

74. (New) The contraceptive device of claim 66 wherein the tubular portion of the tubular body is at least partially self-expanding.

75. (New) The contraceptive device of claim 66 wherein at least a portion thereof is configured to be secured by tissue ingrowth to a wall of the patient's reproductive lumen.

76. (New) The contraceptive device of claim 66 wherein the tubular portion of the tubular body and the tissue growth member are configured to provoke tissue growth that epithelializes the expanded tubular portion of the tubular body and at least a portion of the tissue growth member within the patient's reproductive lumen to substantially occlude the reproductive lumen.

77. (New) The contraceptive device of claim 66 wherein at least part of the tubular body is configured to be secured to a portion of a wall forming the patient's reproductive lumen.

78. (New) The contraceptive device of claim 66 wherein the tubular portion of the tubular body is configured to be secured to a portion of a wall forming the patient's reproductive lumen by epithelialization thereof.

79. (New) The contraceptive device of claim 66 wherein the tubular portion of the tubular body is configured to be secured within the patient's reproductive lumen upon expansion to the second configuration.

80. (New) A method of human contraception comprising
a) providing a contraceptive device comprising a tubular body which has a longitudinal axis, which at least in part is configured to be radially expanded about the longitudinal axis within a patient's reproductive lumen from a first tubular configuration to a second tubular configuration having larger transverse dimensions than the first tubular configuration to facilitate securing at least a portion of the expanded tubular body to a wall portion defining at least in part the patient's lumen, and which has an open structure in the expanded configuration facilitating ingrowth of tissue cells;

- b) inserting within a lumen of a patient's reproductive system at least a portion of the contraceptive device including at least part of the tubular body; and
- c) within a region of the patient's reproductive lumen, radially expanding at least a tubular portion of the tubular body about the longitudinal axis from the first configuration to the second configuration which substantially conforms to inner transverse dimensions of the patient's reproductive lumen in the region where the tubular portion is expanded and which facilitates tissue growth that epithelializes the expanded tubular portion of the tubular body within the patient's reproductive lumen.

81. (New) A contraceptive device, comprising

- a) a body expandable within a lumen of a patient's reproductive system from a first tubular configuration to a second tubular configuration, the second tubular configuration having a larger cross-sectional profile than the first tubular configuration relative to an axis of the contraceptive device to facilitate securing at least a portion of the body to a wall portion defining at least in part a lumen of a patient's reproductive system, the body comprising a helical coil and allowing the ingrowth of tissue;
- b) a material disposed at least in part within the expandable body so as to incite tissue in-growth.